

Abstract Submitted
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Measuring the gluon helicity distribution at a polarized electron-proton collider CHRISTINE AIDALA, UMass Amherst — A polarized electron-proton collider would offer the opportunity to probe the spin structure of the proton over a greatly enhanced kinematic range compared to earlier fixed-target polarized deep-inelastic scattering experiments. Such a facility would provide access to the gluon helicity distribution within the proton through scaling violations of the polarized structure function, g_1 , as well as through certain exclusive channels. Estimates of improved constraints on the gluon helicity distribution that could be obtained with a proposed polarized electron-proton collider will be shown.

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